



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,714	12/02/2003	Frank Hundscheidt	P16614-US1	4732
27045	7590	08/18/2008		
ERICSSON INC. 6300 LEGACY DRIVE M/S EVR 1-C-11 PLANO, TX 75024				
EXAMINER				
LIU, LIN				
ART UNIT		PAPER NUMBER		
2145				
MAIL DATE		DELIVERY MODE		
08/18/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/725,714

Applicant(s)

HUNDSCHIEDT ET AL.

Examiner

LIN LIU

Art Unit

2145

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2008.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 8, 9 and 11-18 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-5, 8, 9 and 11-18 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

1. This office action is responsive to communications filed on 04/23/2008.

Claims 1-5, 8-9 and 11-18 are pending and have been examined.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims **1-4, 8-9, 11-14, and 16-18** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ishiguro (Publication no.: US 2003/0185397 A1)** in view of **Graunke (PGPUB: US 2004/0032950 A1)**.

With respect to **claims 1**, Ishiguro teaches a method and a system for determining locations of service instances for optimising distribution of a service in a network (Ishiguro: page 9, paragraph 155, network), the service instance providing the service from a source to a plurality of clients each having predetermined requirements,

wherein said Wide Area Network (WAN) can be modelled by means of a graph, said method comprising steps of:

placing (Ishiguro: page 7, paragraph 143, noted that each node on the tree is assigned with a licensing key in servicing for the encryption and decryption) a service instance in each leaf in said graph (Ishiguro: fig. 12, and page 7, paragraph 142, noted the hierarchical tree structure is made up with the leaves); said each leaf representing a node in the network directly connected to the plurality of clients (Ishiguro: page 7, paragraph 143, and page 8 paragraph 146, noted that each leaf represents a node, which constitutes the tree structure); and starting from the leaves, for each of the service instances (Ishiguro: page 8, paragraph 145, noted that the key granting the use of any service starts from the leaf at the bottom level to the root node at the topmost level):

checking (Ishiguro: page 7, paragraph 129, noted that the client needs to provide leaf ID and password to the server in order to check whether the client has paid for the servicing fee) whether the service instance when placed in a vertex (Ishiguro: page 7, paragraph 143, noted that this checking is done in the node with the key provided) on the next higher level can fulfil the requirements (Ishiguro: page 8, paragraph 148, noted that after successively decrypting the node keys, the process is carried to next higher level node) of all clients to be served by said service instance; and

depending on the result of the checking step, moving said service instance one level higher (Ishiguro: page 8, paragraph 148 and page 13 paragraph 223, noted that after successively decrypting the node keys, the process is moved to next higher level

node) to minimize a number of service instances necessary to provide the service to the clients.

However, Ishiguro does not explicitly teach a method of managing digital copyrights of content over a Wide Area Network (WAN).

In the same field of endeavor, Graunke teaches a method of managing digital content copyrights over a Wide Area Network (WAN) (Graunke; fig. 1, page 2, paragraph 19, noted that the encrypted content distribution can be effected through WAN).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate the method of managing digital copyrights of content over a Wide Area Network (WAN) as taught by Graunke in Ishiguro's invention in order to provide a broader range of distribution area for the authorized user (Graunke: page 2, paragraph 19).

With respect to **claim 2**, Ishiguro teaches a method according to claim 1, further comprises the steps of determining that at least two service instances (Ishiguro: fig. 12, leaves 0, 1, 2 and 3) meet in said vertex (page 9, paragraph 155, noted that these leaves share the same vertex node K00) and combining said service instances into one service instance (Ishiguro: page 9, paragraph 155, noted that this shared node key is established as a content key in servicing for data encryption and decryption).

With respect to **claim 3**, Ishiguro teaches a method according to claim 1 further comprises a step, prior to said placing step, of determining levels in said graph (Ishiguro: page 10, paragraph 170, noted that the data has a tag part which indicates

the positions of the encrypted node keys and leaf keys).

With respect to **claim 4**, Ishiguro teaches a method according to claim 1, wherein said checking step comprises a table-based analysis step (Ishiguro: fig. 15A, and page 9, paragraphs 157 and 159, noted that a table-based analysis is performed for the encryption keys).

With respect to **claim 8**, Ishiguro teaches a device for determining locations of service instances for optimising distribution of a service in a Wide Area Network (Ishiguro: page 9, paragraph 155, network), the service instances each providing the service from a source to a plurality of clients each client having predetermined requirements, wherein said Wide Area Network can be modelled by means of a graph, the device comprising:

lodging means (Ishiguro: page 7, paragraph 143, noted that each node on the tree is assigned with a licensing key in servicing for the encryption and decryption), for hosting a service instance;

checking means, for checking (Ishiguro: page 7, paragraph 129, noted that the client needs to provide leaf ID and password to the server in order to check whether the client has paid for the servicing fee) whether the service instance when placed in a vertex on the next higher level of the network can fulfill the requirements (Ishiguro: page 8, paragraph 148, noted that after successively decrypting the node keys, the process is carried to next higher level node) of all clients to be served by said service instance;

processing means (Ishiguro: fig. 2 CPU 21), for coordinating said lodging means and said checking means and for controlling said vertex (Ishiguro: page 4, paragraph 79

and 87, noted that CPU carries out various of processes. Including the communication responses between the clients and the servers); and

means for moving the service instance (Ishiguro: page 8, paragraph 148 and page 13 paragraph 223, noted that after successively decrypting the node keys, the process is moved to next higher level node) to minimize a number of service instances necessary to provide the service to the client; and

input/output means (Ishiguro: fig. 2, I/O interface 32), for sending and receiving messages and service instances (Ishiguro: page 4, paragraphs 83, 84 and 87, noted that I/O interface handles the response from the user and transmits the encrypted content data to the storage).

However, Ishiguro does not explicitly teach a method of managing digital copyrights of content over a Wide Area Network (WAN).

In the same field of endeavor, Graunke teaches a method of managing digital content copyrights over a Wide Area Network (WAN) (Graunke; fig. 1, page 2, paragraph 19, noted that the encrypted content distribution can be effected through WAN).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate the method of managing digital copyrights of content over a Wide Area Network (WAN) as taught by Graunke in Ishiguro's invention in order to provide a broader range of distribution area for the authorized user (Graunke: page 2, paragraph 19).

With respect to **claim 9**, Ishiguro teaches a device according to claim 8, further comprises combining means, for determining that at least two service instances (Ishiguro: fig. 12, leaves 0, 1, 2 and 3) meet in said vertex (Ishiguro: page 9, paragraph 155, noted that these leaves share the same node K00) and for combining said service instances into one service instance (Ishiguro: page 9, paragraph 155, noted that this shared node key is established as a content key in servicing for data encryption and decryption).

With respect to **claim 11**, Ishiguro teaches a system for determining locations of service instances for optimizing distribution of a service in a network (Ishiguro: page 9, paragraph 155, network), the service instances each providing the service from a source to a plurality of clients each client having predetermined requirements, wherein said network can be modelled by means of a graph, the system comprising:

means for placing a service instance in each leaf in said graph (Ishiguro: page 7, paragraph 143, noted that each node on the tree is assigned with a licensing key in servicing for the encryption and decryption), said each leaf representing a node directly connected to the plurality of clients (Ishiguro: page 7, paragraph 143, and page 8 paragraph 146, noted that each leaf represents a node, which constitutes the tree structure);

means for starting with said each leaf (Ishiguro: page 8, paragraph 145, noted that the key granting the use of any service starts from the leaf at the bottom level to the root node at the topmost level) and determining whether said service instance, when place in a vertex on the next higher level, can fulfill the requirements of all clients to be

served by said service instance (Ishiguro: page 8, paragraph 148, noted that after successively decrypting the node keys, the process is carried to next higher level node);

in response to an affirmative determination, means for moving said service instance one level higher (Ishiguro: page 8, paragraph 148 and page 13 paragraph 223, noted that after successively decrypting the node keys, the process is moved to next higher level node) to minimize a number of service instances necessary to provide the service to the clients.

depending on the result of the checking step (Ishiguro: page 8, paragraph 148 and page 13 paragraph 223, noted that after successively decrypting the node keys, the process is moved to next higher level node), moving said service instance one level higher to minimize a number of service instances necessary to provide the service to the clients.

However, Ishiguro does not explicitly teach a method of managing digital copyrights of content over a Wide Area Network (WAN).

In the same field of endeavor, Graunke teaches a method of managing digital content copyrights over a Wide Area Network (WAN) (Graunke; fig. 1, page 2, paragraph 19, noted that the encrypted content distribution can be effected through WAN).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate the method of managing digital copyrights of content over a Wide Area Network (WAN) as taught by Graunke in Ishiguro's invention

in order to provide a broader range of distribution area for the authorized user (Graunke: page 2, paragraph 19).

With respect to **claim 12**, the limitations of this claim are substantially the same as those in claim 2. Therefore the same rationale for rejecting claim 2 is used to reject claim 12. By this rationale **claim 12** is rejected.

With respect to **claim 13**, the limitations of this claim are substantially the same as those in claim 3. Therefore the same rationale for rejecting claim 3 is used to reject claim 13. By this rationale **claim 13** is rejected.

With respect to **claim 14**, the limitations of this claim are substantially the same as those in claim 4. Therefore the same rationale for rejecting claim 4 is used to reject claim 14. By this rationale **claim 14** is rejected.

With respect to **claim 16**, Ishiguro teaches all of the claimed limitations, except that he does not explicitly teach a method of managing digital copyrights of content over a telecommunications network.

In the same field of endeavor, Graunke teaches a method of managing digital content copyrights over a telecommunications network (Graunke; fig. 1, page 2, paragraphs 19 and 23). The same motivation used in claim 1 applies to equally as well to claim 16.

With respect to **claims 17 and 18**, the limitations of these claims are substantially the same as those in claim 16. Therefore the same rationale for rejecting claim 16 is used to reject claims 17 and 18. By this rationale **claims 17 and 18** are rejected.

5. Claims **5 and 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ishiguro (Publication no.: US 2003/0185397 A1)** in view of **Graunke (PGPUB: US 2004/0032950 A1)** and further in view of **Moody (publication no.: US 2005/0005272)**.

With respect to **claims 5 and 15**, the combined method of Ishiguro and Graunke teaches all the claimed limitations except that they do not explicitly teach a method of utilizing a Petri net analysis for a checking step.

In an analogous art, Moody teaches a method of utilizing a Petri net analysis for a checking step (Moody: page 3, paragraphs 47 and 48, noted that Petri nets technique is used in analyzing the system).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate the analysis technique of Petri nets as taught by Moody in the combined method of Ishiguro's and Graunke's method in order to provide a powerful and efficient system model that incorporate the synchronization, conflict, and concurrency issues associated with the distributed, dynamic resource allocation problem of autonomous negotiating systems (Moody: page 3, paragraph 48).

Response to Arguments

6. Applicant's arguments filed on 04/23/2008 have been fully considered but they are not persuasive.

7. After carefully reviewing the Applicant's remarks, the following is a list of Applicant's main concerns on the previous Office Action:

- a. On pages 6-7 of Applicant's remark, Applicant argues that "The intent and execution of the Ishiguro reference is for providing a content licensing key in as many nodes as possible, which is in direct contrast to the Applicant's invention. The Applicant's invention and claims are directed to reducing the number of instances in a network to serve the same number of clients."
8. In response to applicant's argument **a**, the examiner respectfully disagrees. In another words, Applicant argues that *the intention of the Ishiguro reference is for providing a content licensing key in as many nodes as possible, while it is in direct contrast as to what Applicant intends to do with Applicant's invention*. The examiner would like to address that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.
9. Applicant has had an opportunity to amend the claimed subject matter, and has failed to modify the claim language to distinguish over the prior art of record by clarifying or substantially narrowing the claim language. Thus, Applicant apparently intends that a broad interpretation be given to the claims and the Examiner has adopted such in the present and previous Office action rejections. See *In re Prater and Wei*, 162 USPQ 541 (CCPA 1969), and MPEP 2111.
10. Applicant employs broad language, which includes the use of word, and phrases, which have broad meanings in the art. In addition, Applicant has not argued any

narrower interpretation of the claim language, nor amended the claims significantly enough to construe a narrower meaning to the limitations. As the claims breadth allows multiple interpretations and meanings, which are broader than Applicant's disclosure, the Examiner is forced to interpret the claim limitations as broadly and as reasonably possible, in determining patentability of the disclosed invention. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir.1993).

11. Failure for Applicant to significantly narrow definition/scope of the claims and supply arguments commensurate in scope with the claims implies the Applicant intends broad interpretation be given to the claims. The Examiner has interpreted the claims with scope parallel to the Applicant in the response, and reiterates the need for the Applicant to more clearly and distinctly defines the claimed invention.

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2145

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lin Liu whose telephone number is (571) 270-1447.

The examiner can normally be reached on Monday - Friday, 7:30am - 5:00pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on (571) 272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/L. L./

/Lin Liu/

Examiner, Art Unit 2145

/saleh najjar/

Supervisory Patent Examiner, Art Unit 2155